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A REVISION OF THE SPECIES OF *MOLOTHRUS*
ALLIED TO *M. BONARIENSIS* (Gm.).

BY WITMER STONE.

HAVING recently made a careful study of the specimens of Icteridæ in the collection of the Academy of Natural Sciences of Philadelphia, which formed the basis of Cassin's review of this family in the Proceedings Phila. Acad., 1865-6, I found that the true nature of several of the species of *Molothrus* and *Lamprosar* described by him has been but very imperfectly understood by subsequent writers on these groups.

This fact led to a more extended study of the species of *Molothrus* allied to *M. bonariensis*, based upon the specimens in the Academy collection and a number from the collection of the United States National Museum, which were loaned to me through the kindness of Mr. Robert Ridgway of that institution.

The most surprising point in connection with this investigation was Cassin's mistake in the identification of the species of *Lamprosar*, the birds described by him as *L. tanagrinus* proving to be young males of the small form of *Molothrus bonariensis*, known as *M. atronitens*, while his *L. guianensis* is an adult male of the same species. With such an idea of the nature of the genus *Lamprosar*, it is not surprising that Mr. Cassin considered it a subgenus of *Molothrus* and that the new species described by him as *L. cabanisii* should prove to be a true *Molothrus*—i.e., the one subsequently described by Finsch as *M. cassini*. Finsch identified this bird with the *M. discolor* of Cassin, and as this name (based on *Passerina discolor* Vieill.), proved to be a synonym of *Molothrus bonariensis*, the new name, *M. cassini*, was proposed for the species. As a matter of fact, however, the *M. discolor* of Cassin is a very different bird from the one with which Finsch identified it, and is still unfortunately without a name.

In view of the confusion which exists in this group, I have thought it worth while to give a full synonymy of the several species and to add descriptions by which they may be separated.

The genus *Molothrus* as generally recognized contains two well defined genera, *Molothrus* and *Callothrux*, which have

been clearly separated by Ridgway (Manual of N. A. Birds, p. 589). To *Callothrus* belong *M. æneus* Wagl., *M. robustus* Cab., and probably *M. armenti* Cab., a bird which I have never seen, and which is not now in the Academy collection, though Cassin refers a young male formerly in the collection to this species. To *Molothrus* belong the brown headed *M. ater* (Bodd.) and *M. ater obscurus* (Gmel.), the rufous winged *M. badius*, *M. fringillarius*, *M. rufoaxillaris*, and the group of glossy purple species allied to *M. bonariensis* (Gm.). It is among the latter that the confusion exists.

Having examined all the material at my disposal and consulted all the descriptions applying to this group, I think that five species can be recognized, the adult males of which may be distinguished by the following table.

- A. Reflections of head and interscapulum decidedly purple. Breast bright purple, rather brighter than the back and generally with slight golden reflections.
- a. Wing, 3.80 to 4.00 in. *M. atronitens*.
 - b. Wing, 4.25 to 4.50 in.
 - aa. Bill moderate, culmen .73 in. *M. bonariensis*.
 - bb. Bill much heavier, culmen .82 in. or more. . . *M. purpurascens*.
- B. Reflections of head and interscapulum bluer. Breast darker purple without golden reflections. Bill more slender than in any of the other species, .80 in. long. *M. venezuelensis*.
- b. Wing 5.15 to 5.25 in. *M. cabanisi*.

The synonymy of the species, with brief descriptions, follows:

M. bonariensis (Gm.).

Tanagra bonariensis GMELIN, Syst. Nat. I, p. 898, 1788.—BONAPARTE, Conspectus Av. I, p. 437.

Molothrus bonariensis CABANIS, Mus. Hein. I, p. 193.—CASSIN, Proc. A. N. S. Phila. 1866, p. 19.—SCLATER & SALVIN, P. Z. S. 1868, p. 140.—SCLATER, Ibis, 1884, p. 5; Catal. Bds. Brit. Mus. XI, p. 335.

Icterus sericeus LICHT., Doubl., p. 19, 1823.

Molothrus sericeus BONAPARTE, Conspectus Av. I, p. 437.—CASSIN, Proc. A. N. S. Phila. 1866, p. 21.

Molothrus sericeus BURM. Syst. Ueb. II, p. 279;—La Plata Reise, II, p. 494.

Scolecophagus sericeus SW., An. in Menag., p. 301.

Icterus minor SPIX, Av. Bras. I, p. 67, pl. 63, fig. 2.

Icterus violaceus MAX. Beitrage, III, p. 1212.

Molothrus niger GOULD, Zool. Voy. Beagle, III, p. 107.

Passerina discolor VIEILL. N. D. d'H. N. XXXIV, p. 552; Enc. Meth. p. 939.

Icterus maxillaris D'ORB. & LAFR. Syn. Av. II, p. 6.—D'ORB. Voy., Ois. p. 369, tab. lii, fig. 2.

Molothrus maxillaris CASSIN, Proc. A. N. S. Phila. 1866, p. 21.

Adult male, above shining purplish black, with bluish green reflections on the lower rump, wings and tail; beneath purplish black, a little brighter, with more or less of a golden reflection. Wing 4.25-4.50 in. Bill moderate, rather short and conical; culmen .73 in.; depth through nostril, .36 in; tail, 3.55 in.

Female, ashy brown, paler beneath.

Habitat. Eastern S. America; Argentine Republic to Brazil.

Cyrtotes maxillaris (d'Orb.) seems to be merely this species with the beak deformed. I have examined the two specimens in the Academy collection and can find no other difference.

***Molothrus atronitens* Cab.**

Molothrus atronitens CAB., in Schomb. Guian. III, p. 682; Mus. Hein. I, p. 193.—PELZ. Orn. Bras., p. 200.—FINSCH, P. Z. S. 1870, p. 576.—BERLEPSCH, Journ. f. Orn. 1873, p. 249.—SCLATER, Ibis, 1884, p. 6; Catal. Birds Brit. Mus. XI, p. 337.

Lampropsar tanagrinus CASSIN, Proc. A. N. S. Phila. 1866, p. 22.

Lampropsar guianensis CASSIN, Proc. A. N. S. Phila. 1866, p. 22.

This species seems exactly like the preceding in plumage, but is distinguished by its smaller size while the bill is proportionately longer. Wing 3.80 to 4.00 in., tail 3.35 in., culmen .70 in., depth of bill through the nostril .30 in.

Young birds appear much duller and were identified with *Lampropsar tanagrinus* by Cassin (see above).

M. atronitens seems to be the representative of *M. bonariensis* in northern South America, and will doubtless prove to be a mere race of that species.

Habitat. Venezuela, Guiana, and Trinidad.

***Molothrus cabanisii* Cass.**

Molothrus (Lampropsar) cabanisii CASSIN, Proc. A. N. S. Phila. 1866, p. 32.

Malothrus cassini FINSCH, P. Z. S. 1870, p. 567.—BERLEPSCH, Journ. für Orn. 1873, p. 250.—SCLATER, Ibis, 1884, p. 6; Catal. Birds Brit. Mus. XI, p. 337.

Molothrus discolor SALV. & GODM. Ibis, 1880, p. 123.—SCL. & SALV. P. Z. S. 1879, p. 509. (*Non* CASSIN, Proc. A. N. S. Phila. 1866, p. 20.)

This species is exactly like *M. bonariensis* in plumage, but may be easily distinguished by its large size. Wing, 5.15 to 5.25 in., tail 4.85 in., culmen .80 in., depth of bill through the nostril .38 in.

Cassin's description of this species is perfectly clear, but the fact of its being placed in the genus *Lampropsar* has probably accounted for its not having been recognized.

Habitat. Colombia and Venezuela.

Molothrus purpurascens Hahn.

Xanthornus purpurascens HAHN & KÜSTER, Vög. aus Asien, Lief. V, t. 4.

Molothrus purpurascens CASSIN, Proc. A. N. S. Phila. 1866, p. 20.—SCLATER, P. Z. S. 1869, p. 148; Ibis, 1884, p. 7.—TACZ. Orn. Péruv. II, p. 422.—SCLATER, Catal. Birds Brit. Mus. XI, p. 337.

Adult male, plumage as in *M. bonariensis*, bill much heavier. Female, uniformly lighter than that of the eastern species. Wing, 4.35 to 4.45 in. tail 3.40 in., culmen .82 in., depth of bill through nostril, .40 in.

Habitat. Western Peru.

Molothrus venezuelensis, sp. nov.

Molothrus discolor CASSIN, Proc. A. N. S. Phila. 1866, p. 20; *non Passerina discolor* VIEILL. Nouv. Dict. d'H. N. XXXIV, p. 552; *non* SCL. & SALV. P. Z. S. 1879, p. 509, etc.

About the size and general appearance of *M. bonariensis* but uniform steel blue above with scarcely a trace of purple, beneath dark purple. Bill longer and more slender than in *M. bonariensis* and tail longer. Wing 4.40 in., tail 3.20 in., culmen, .80 in., depth of bill through nostril .35 in.

Though the distinctly blue shade of the plumage serves to distinguish this species from *M. bonariensis* (or any other species of the group) in the majority of cases, nevertheless, Mr. Ridgway informs me that some specimens of the latter species approach *M. venezuelensis* very closely in this respect. The shape of the bill, however, is constantly different. I have seen but two specimens of this species, a young male in the Philadelphia Academy collection (No. 3652) labelled (probably erroneously) from Cuba, which is one of the types of Cassin's *M. discolor*, and an adult male in the collection of the U. S. National Museum, "No. 88423, Venezuela. A. Goering. Museum von Berlepsch." The latter may be considered the type specimen.